# Přílohy

## MainActivity.java

**package** com.example.kurzymen;  
  
**import** android.widget.ArrayAdapter;  
**import** android.widget.EditText;  
**import** android.widget.Spinner;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
**import** android.net.NetworkInfo;  
**import** android.content.Context;  
**import** android.content.res.Resources;  
**import** android.net.ConnectivityManager;  
**import** android.os.AsyncTask;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
  
**import** org.apache.http.HttpEntity;  
**import** org.apache.http.HttpResponse;  
**import** org.apache.http.client.methods.HttpPost;  
**import** org.apache.http.impl.client.DefaultHttpClient;  
**import** org.apache.http.params.BasicHttpParams;  
**import** org.json.JSONObject;  
  
**import** java.io.BufferedReader;  
**import** java.io.InputStream;  
**import** java.io.InputStreamReader;  
**import** java.math.RoundingMode;  
**import** java.text.DecimalFormat;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 **static** String *sURL* = **"http://www.apilayer.net/api/live?access\_key=364301a6cfaf4c45d5c6c3d93c114743&format=1"**;  
 **static** Double *dMena1*;  
 **static** Double *dMena2*;  
 **static** Double *dMena3*;  
 **static** Double *dMena4*;  
 **static** Double *dMena5*;  
 **static** Double *dMena6*;  
 **static** String *sJSON* = **""**;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 zjistPripojeni();  
 nastavSpinner();  
 }  
  
 **public void** zjistPripojeni() {  
 ConnectivityManager cm = (ConnectivityManager) getSystemService(Context.***CONNECTIVITY\_SERVICE***);  
 NetworkInfo pripojeni = cm.getActiveNetworkInfo();  
  
 **if** ((pripojeni != **null** && pripojeni.isAvailable() && pripojeni.isConnected())){  
 **new** NactiAsyncTask().execute();  
 } **else** {  
 Toast.*makeText*(getApplicationContext(), getString(R.string.***er\_internet***), Toast.***LENGTH\_LONG***).show();  
 }  
 }  
  
  
 **public void** btnClicked(View view) {  
 Double dZadani = zjistiZadani();  
  
 String prevMen1 = zjistiMenu(R.id.***spinner1***);  
 String prevMen2 = zjistiMenu(R.id.***spinner2***);  
  
 vypisVysledek(dZadani, prevMen1, prevMen2);  
 }  
  
 **protected** String zjistiMenu(**int** sid){  
 Spinner spin = (Spinner) findViewById(sid);  
 String mena = spin.getSelectedItem().toString();  
 **return** mena;  
 }  
  
 **protected double** zjistiZadani(){  
 EditText etHodnotaIn = (EditText) findViewById(R.id.***prevodIn***);  
 String sHodnitaIn = etHodnotaIn.getText().toString();  
 Double dZadani;  
  
 **if**(sHodnitaIn.isEmpty()) {  
 dZadani = 0.0;  
 } **else** {  
 dZadani = Double.*parseDouble*(etHodnotaIn.getText().toString());  
 }  
 **return** dZadani;  
 }  
  
 **protected double** vypocti (**double** zadani, String prevMen1, String prevMen2) {  
 Double dKurzIn = 0.0;  
 Double dKurzOut = 0.0;  
 Double vysledek;  
  
 **try** {  
 JSONObject jsonObject = **new** JSONObject(*sJSON*);  
 JSONObject quotesJSONObject = jsonObject.getJSONObject(**"quotes"**);  
  
 dKurzIn = quotesJSONObject.getDouble(**"USD"**+prevMen1);  
 dKurzOut = quotesJSONObject.getDouble(**"USD"**+prevMen2);  
 } **catch** (Exception e) {  
 e.printStackTrace();  
 }  
  
 vysledek = zadani \* (1 / dKurzIn) \* dKurzOut;  
 **return** vysledek;  
 }  
  
 **protected void** vypisVysledek(**double** dZadani, String prevMen1, String prevMen2){  
 TextView tvO = (TextView)findViewById(R.id.***prevodOut***);  
 TextView tvI = (TextView)findViewById(R.id.***prevodInV***);  
 TextView rovnaSe = (TextView)findViewById(R.id.***rovnaSe***);  
  
 DecimalFormat df = **new** DecimalFormat(**"#.####"**);  
 df.setRoundingMode(RoundingMode.***CEILING***);  
  
 String vystupI = String.*valueOf*(df.format(dZadani))+**" "**+prevMen1;  
 String vystupO = String.*valueOf*(df.format(vypocti(dZadani, prevMen1, prevMen2)))+**" "**+prevMen2;  
  
 tvI.setText(vystupI);  
 rovnaSe.setText(**"="**);  
 tvO.setText(vystupO);  
 }  
  
 **protected void** nastavSpinner(){  
 Spinner spinner = (Spinner) findViewById(R.id.***spinner1***);  
  
 ArrayAdapter<CharSequence> adapter = ArrayAdapter.*createFromResource*(**this**, R.array.***pMeny***, android.R.layout.***simple\_spinner\_item***);  
 spinner.setAdapter(adapter);  
  
 spinner = (Spinner) findViewById(R.id.***spinner2***);  
  
 adapter = ArrayAdapter.*createFromResource*(**this**, R.array.***pMeny***, android.R.layout.***simple\_spinner\_item***);  
 spinner.setAdapter(adapter);  
  
 }  
  
 **private class** NactiAsyncTask **extends** AsyncTask<String, String, String> {  
  
  
 **protected** String doInBackground(String... arg0){  
 DefaultHttpClient klientHTTP = **new** DefaultHttpClient(**new** BasicHttpParams());  
 HttpPost httppost = **new** HttpPost(*sURL*);  
 httppost.setHeader(**"Content-type"**, **"application/json"**);  
 InputStream inputStream = **null**;  
  
 *sJSON* = **null**;  
  
 **try** {  
 HttpResponse response = klientHTTP.execute(httppost);  
 HttpEntity entity = response.getEntity();  
 inputStream = entity.getContent();  
 BufferedReader reader = **new** BufferedReader(**new** InputStreamReader(inputStream, **"UTF-8"**), 8);  
 StringBuilder sb = **new** StringBuilder();  
 String radek = **null**;  
 **while** ((radek = reader.readLine()) != **null**) {  
 sb.append(radek + **"\n"**);  
 }  
 *sJSON* = sb.toString();  
 } **catch** (Exception e) {  
 e.printStackTrace();  
 }  
 **finally** {  
 **try** {  
 **if**(inputStream != **null**) {  
 inputStream.close();  
 }  
 } **catch** (Exception e){}  
 }  
  
 **try** {  
 JSONObject jsonObject = **new** JSONObject(*sJSON*);  
  
 JSONObject quotesJSONObject = jsonObject.getJSONObject(**"quotes"**);  
  
 *dMena1* = quotesJSONObject.getDouble(**"USDCZK"**);  
 *dMena2* = quotesJSONObject.getDouble(**"USDEUR"**);  
 *dMena3* = quotesJSONObject.getDouble(**"USDGBP"**);  
 *dMena4* = quotesJSONObject.getDouble(**"USDAUD"**);  
 *dMena5* = quotesJSONObject.getDouble(**"USDCNY"**);  
 *dMena6* = quotesJSONObject.getDouble(**"USDPLN"**);  
  
 } **catch** (Exception e) {  
 e.printStackTrace();  
 }  
 **return** *sJSON*;  
 }  
  
 **protected void** onPostExecute(String results) {  
  
 vypis(R.id.***mena1h***, R.string.***mena1***, *dMena1*);  
 vypis(R.id.***mena2h***, R.string.***mena2***, *dMena2*);  
 vypis(R.id.***mena3h***, R.string.***mena3***, *dMena3*);  
 vypis(R.id.***mena4h***, R.string.***mena4***, *dMena4*);  
 vypis(R.id.***mena5h***, R.string.***mena5***, *dMena5*);  
 vypis(R.id.***mena6h***, R.string.***mena6***, *dMena6*);  
  
  
 }  
 }  
  
 **protected void** vypis(**int** tid, **int** sid, **double** mena){  
 TextView tv = (TextView)findViewById(tid);  
  
 Resources res = getResources();  
 String t;  
 **double** diUSD = (1/*dMena1*);  
  
 **if**(R.id.***mena1h*** == tid){  
 t = res.getString(sid, mena);  
 } **else** {  
 t = res.getString(sid, 1/(mena\*diUSD));  
 }  
  
 tv.setText(t);  
 }  
}

## AndroidManifest.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.kurzymen"**>  
  
 <**uses-permission android:name="android.permission.INTERNET"** />  
 <**uses-permission android:name="android.permission.ACCESS\_NETWORK\_STATE"** />  
  
 <**application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:supportsRtl="true"  
 android:theme="@style/AppTheme"**>  
 <**activity android:name=".MainActivity"**>  
 <**intent-filter**>  
 <**action android:name="android.intent.action.MAIN"** />  
  
 <**category android:name="android.intent.category.LAUNCHER"** />  
 </**intent-filter**>  
 </**activity**>  
 </**application**>  
  
</**manifest**>

## activity\_main.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 tools:context="com.example.kurzymen.MainActivity"**>  
  
 <**TextView  
 android:id="@+id/hlavniMena"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_hlavni"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="@dimen/margin\_top"  
 android:text="@string/hlMena"** />  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:layout\_marginTop="@dimen/margin\_radky"**>  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena1h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena2h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:layout\_marginTop="@dimen/margin\_radky"**>  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena3h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena4h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:layout\_marginTop="@dimen/margin\_radky"**>  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena5h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 <**TextView  
 android:id="@+id/mena6h"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"** />  
 <**Space  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"** />  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:orientation="horizontal"**>  
  
 <**EditText  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:id="@+id/prevodIn"  
 android:inputType="numberDecimal"** />  
  
 <**Spinner  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/spinner1"** />  
  
 <**Spinner  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/spinner2"**/>  
  
 <**Button  
 android:id="@+id/btnPrevod"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="btnClicked"  
 android:text="@string/btnPrevodt"** />  
 </**LinearLayout**>  
  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"  
 android:id="@+id/prevodInV"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/rovnaSe"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"  
 android:id="@+id/prevodOut"** />  
  
  
</**LinearLayout**>

## activity\_main.xml pro polohu landscape

*<?***xml version="1.0" encoding="utf-8"***?>*<**GridLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:columnCount="3"  
 tools:context="com.example.portovac.MainActivity"**>  
  
 <**TextView  
 android:id="@+id/hlavniMena"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="0"  
 android:layout\_columnSpan="2"  
 android:textSize="@dimen/font\_size\_hlavni"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="@dimen/margin\_top"  
 android:text="@string/hlMena"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="1"  
 android:layout\_column="0"  
 android:id="@+id/mena1h"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:layout\_marginRight="@dimen/margin\_mezera"  
 android:layout\_marginLeft="@dimen/margin\_zleva"**/>  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="1"  
 android:layout\_column="1"  
 android:id="@+id/mena2h"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"**/>  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="2"  
 android:layout\_column="0"  
 android:id="@+id/mena3h"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:layout\_marginRight="@dimen/margin\_mezera"  
 android:layout\_marginLeft="@dimen/margin\_zleva"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="2"  
 android:layout\_column="1"  
 android:id="@+id/mena4h"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"**/>  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="3"  
 android:layout\_column="0"  
 android:id="@+id/mena5h"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:layout\_marginRight="@dimen/margin\_mezera"  
 android:layout\_marginLeft="@dimen/margin\_zleva"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="3"  
 android:layout\_column="1"  
 android:id="@+id/mena6h"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"**/>  
 <**LinearLayout  
 android:orientation="horizontal"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="fill\_horizontal"  
 android:layout\_row="0"  
 android:layout\_column="2"  
 android:layout\_rowSpan="2"  
 android:layout\_marginTop="@dimen/margin\_top"**>  
  
 <**EditText  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:id="@+id/prevodIn"  
 android:inputType="numberDecimal"** />  
  
 <**Spinner  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/spinner1"** />  
  
 <**Spinner  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/spinner2"**/>  
  
 <**Button  
 android:id="@+id/btnPrevod"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="btnClicked"  
 android:text="@string/btnPrevodt"** />  
 </**LinearLayout**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="1"  
 android:layout\_column="2"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"  
 android:id="@+id/prevodInV"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/rovnaSe"  
 android:layout\_row="2"  
 android:layout\_column="2"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_row="3"  
 android:layout\_column="2"  
 android:layout\_marginTop="@dimen/margin\_radky"  
 android:textSize="@dimen/font\_size\_meny"  
 android:layout\_gravity="center\_horizontal"  
 android:id="@+id/prevodOut"** />  
</**GridLayout**>

## strings.xml

<**resources**>  
 <**string name="app\_name"**>Kurzy Měn</**string**>  
 <**string name="title\_activity\_prevod"**>PrevodActivity</**string**>  
 <**string name="er\_internet"**>Není dostupné připojení k internetu</**string**>  
 <**string name="hlMena"**>CZK</**string**>  
 <**string name="mena1"**>USD : %1$.4f</**string**>  
 <**string name="mena2"**>EUR : %1$.4f</**string**>  
 <**string name="mena3"**>GBP : %1$.4f</**string**>  
 <**string name="mena4"**>AUD : %1$.4f</**string**>  
 <**string name="mena5"**>CNY : %1$.4f</**string**>  
 <**string name="mena6"**>PLN : %1$.4f</**string**>  
 <**string name="btnPrevodt"**>Převeď</**string**>  
 <**string-array name="pMeny"**>  
 <**item**>CZK</**item**> *<!-- česká koruna -->* <**item**>USD</**item**>*<!-- americký dolar -->* <**item**>AUD</**item**>*<!-- australský dolar -->* <**item**>EUR</**item**>*<!-- Euro -->* <**item**>GBP</**item**>*<!-- britská libra -->* <**item**>CAD</**item**>*<!-- canadský dolar -->* <**item**>BRL</**item**>*<!-- brazilský real -->* <**item**>PLN</**item**>*<!-- polský zlotý -->* <**item**>CNY</**item**>*<!-- čínský juan -->* <**item**>HKD</**item**>*<!-- hongkongský dolar -->* <**item**>HRK</**item**>*<!-- chorvatská koruna -->* <**item**>JPY</**item**>*<!-- japonský jen -->* <**item**>HUF</**item**>*<!-- maďarský forint -->* <**item**>MXN</**item**>*<!-- mexické peso -->* <**item**>NZD</**item**>*<!-- novozélandský dolar -->* <**item**>NOK</**item**>*<!-- norská koruna -->* <**item**>RUB</**item**>*<!-- ruská rubl -->* <**item**>SEK</**item**>*<!-- švédská koruna -->* </**string-array**>  
</**resources**>

## dimens.xml

<**resources**>  
 <**dimen name="activity\_horizontal\_margin"**>16dp</**dimen**>  
 <**dimen name="activity\_vertical\_margin"**>18dp</**dimen**>  
 <**dimen name="font\_size\_hlavni"**>35sp</**dimen**>  
 <**dimen name="font\_size\_meny"**>20sp</**dimen**>  
 <**dimen name="margin\_zleva"**>10sp</**dimen**>  
 <**dimen name="margin\_mezera"**>20sp</**dimen**>  
 <**dimen name="margin\_top"**>13dp</**dimen**>  
 <**dimen name="margin\_radky"**>13dp</**dimen**>  
</**resources**>